

## UIC Discussion Draft Regulations

March 4, 2016

### General Comments

Recommend that cyclic steam should have a separate section in the proposed regulations.

The terms 'aquifer', 'zone', 'reservoir', 'formation', and 'pool' used interchangeably in the Regulation and needs to be consolidated into one term, 'zone' or 'injection zone', which accurately describes and clarifies this stratigraphic unit for the purposes of the UIC regulations.

These proposed regulations will cause a significant economic impact. In accordance with OAL regulations has the Division created an impact analysis?

### Comments to other sections are listed below.

#### Definitions (b)

Remove it is not referenced in the regulations.

#### Definitions (c)

Remove it is not referenced in the regulations.

#### Definitions (d)

Does the sections cited 3013 and 3106 PRC allow the DOGGR the authority to determine a definition of freshwater. Please specifically explain. Does this authority not reside with the RWQCB and does this develop a conflict.

#### Definitions (f)

This broadens the scope of 40CFR to include non UIC wells and the Division should provide information and discussion how this will affect those wells.

1724.6

For clarity what does the "judgement of the Supervisor" mean.

Prior to the PAL allow injectivity test designed to determine the feasibility of injection into a zone.

1724.6.c

Remove the term “ongoing discretion”.

If the project is corrected it should be limited to the infraction and the deficiently be identified.

1724.6.e

Add: The Division shall not suspend, modify, or otherwise limit the PAL if the Division is unable to meet with the operator within a reasonable period of time.

1724.7.a

Should delete “demonstrates to the Division satisfaction” and replace with “demonstrates the project is compliance with statute and regulations”.

Define “changes to the setting”

17427.7.1.a.1

Replace with the following:

An engineering and geological study demonstrating that injected fluid will not migrate out of the approved zone or zones including but not limited to:

17427.7.1.a.1.B

Replace with the following:

Reservoir characteristics of each injection zone, such as porosity, permeability, average thickness, areal extent, fracture gradient, original and present temperature and pressure, and original and residual oil, gas, and water saturations.

17427.7.1.a.1.C

Better define non-hydrogen components why it is needed, and how it will be used.

17427.7.1.a.1.D

Replace with the following:

A map of the area of review showing the location and status of all wells within the area of review. The wellbore path of directionally drilled wells shall show the segment of the wellbore that intersects the area of review.

17427.7.1.a.1.E

Replace with:

Casing diagrams, shall include all wells that are within the area of review and that are in the same or a deeper zone as the injection project, including directionally drilled wells that intersect the area of review in the same or deeper zone. The casing diagrams must demonstrate that the wells in the area will not have an adverse effect on the project or cause damage to life, health, property, or natural resources. At a minimum, the casing diagrams must demonstrate that:

1724.7.1.a.E.(i)

Replace with the following:

Plugged and abandoned wells have cement isolation across the zones to prevent out of zone migration.

1724.7.1a.E.(ii)

This section should be eliminated. Also the Division is now applying USDW to producing wells as commented in Definitions (f).

1724.7. 1.a. G

This section should be eliminated it is repetitive and unclear.

1724.7. 1.a. I

Please clarify subsurface activities.

#### 1724.7.2.A

Define lateral containment features.

#### 1724.7.2.D

Replace with the following:

Representative electric log to a depth below the deepest producing zone (if not already shown on the cross section), identifying all geologic units, formations, base of freshwater, and oil or gas zones.

Comment: How do you demonstrate USDW using an electric log.

#### 1724.7.3.G

Replace with the following:

The source of the injection fluid, and an analysis of the injection fluid as specified in Section 1724.7.2.

#### 1724.7.4

The use of “anywhere” should be removed or defined.

#### 1724.7.1.a.1.A

Include api no of the well, name of the well, and current operator.

#### 1724.7.1.a.1.E

Should be eliminated. USDW cannot be identified from electric logs.

#### 1724.7.1.a.1.M

Replace with:

Depths of the injection zones penetrated by the well, including the top and bottom of the zone where injection will occur.

Comment: For what purpose is sandmarkers required when it is provided in other data or may not be available.

1724.7.1.a.1.N

Replace with:

If no cement returns are reported to surface in the record or a conclusive cement evaluation log is not available, then a cement fill calculation must be performed. All steps must be included, showing cement yield calculations, including slurry volume, cement type, and density for each cement job completed in each well.

1724.7.1.a.1.O

Delete this section.

1724.7.1.a.3

This needs more clarity for the interval desired.

1724.7.1.a.4

Eliminate "flat data set "

1724.7.2

The Division should explain the purpose and benefit of the additional fluid analysis.

1724.7.3

This should be considered guidance and not regulation and the section should be removed.

District office should be notified 24 hrs before the test.

1724.10.b

Remove: In addition to the notice of intention that may be required under Public Resources Code section 3203, the addition of an injection well to an underground injection project is subject to approval by the Division in accordance with Section 1724.6.

Comment: What is the purpose of the above statement.

1724.10.d

The reason and necessity for an injectate analysis if there is no change of source fluid.

For gas storage projects this should not be required.

1724.10.g

The reasoning and necessity of removing steam, air, and pipeline quality gas injection wells should be explained.

1724.10.j.1

Replace with:

Prior to commencing injection operations, each injection well must pass a pressure test of the casing to determine the absence of leaks. Thereafter, the casing tubing annulus of each well must be tested at least once every five years. The casing tubing annulus shall be tested to ensure integrity of the casing at a surface pressure of 200 psi. with the casing tubing annulus well filled with water.

Comment: Casing integrity for leaks can be tested at 200 psi.

Comment: When there is a cemented inner liner this pressure test is not currently required and should be exempted under these proposed regulations. It would not be possible to test the casing.

1724.10.j.2

Comment: The Division should explain the necessity of increasing the frequency of surveys for all injection wells and other changes of this section. Does the Division have any data to support this change?

1724.10.j.4

Show the necessity of requiring 48 hrs notification.

1724.10.k

Continually monitored shall be defined.

1724.10.k.2

Should be failed a mechanical integrity “test”

#### 1724.10.k.5

An injection well should not be suspended for not reporting injection 110B. The penalty is not proportional to the infraction.

#### 1724.10.1

This should be considered guidance and not regulation and the section should be removed.

#### 1724.11

This section is duplicative and not required.

Comment: Reportable incident would have many inferences. An oil spill is defined as a reportable incident however a packer failure that poses no threat to the environment should not be equated with a spill.